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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,548	01/27/2004	David Reginald Carver		9605

7590 05/16/2006
David R. Carver
4365 Reginald Ct.
Colorado Springs, CO 80906

EXAMINER

EVANS, FANNIE L

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

B) L

Office Action Summary

Application No.

10/764,548

Applicant(s)

CARVER ET AL.

Examiner

F. L. Evans

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 1, 10, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Specification

Applicant is required to amend the specification by canceling all reference to omitted Figure 5 and correct the references in the specification to the drawing figures to correspond with any relabeled drawing figures. Applicant's attention is directed to the last two paragraphs on the first page of the NOTICE OF OMITTED ITEM(S) IN A NONPROVISIONAL APPLICATION, mailed on August 18, 2004.

Applicant is required to delete specific reference to the claims by claims number in the text under the heading "Brief Summary of the Invention" in the specification.

The Drawings

Applicant is required to re-label the drawing figures so that they are consecutively numbered. See the last two paragraphs the first page of the NOTICE OF OMITTED ITEM(S) IN A NONPROVISIONAL APPLICATION, mailed on August 18, 2004.

Corrected drawing sheets in compliance with 37 CFR § 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR § 1.121(d). If the changes are not accepted by

Art Unit: 2877

the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1, 10, 19 and 20 are objected to because of the presence of periods within these claims. Each claim begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations.

Dependent claims 2-9 are objected to because the preamble of the claims refer to a method ("A method according to claim --"). Independent claim 1 is not directed to method. In line 1 of claims 2-9, "method" should be changed to --apparatus--.

Appropriate correction is required

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-18 and 21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10-18 and 21 are incomplete. The preamble of claims 10-18 and 21 is directed to a method, however, the body of the claims fail to set forth active steps for detecting and measuring spectral absorbance of a sample.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2877

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 9-11, 13 and 18-20 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Louder et al (US 3,885,879).

Louder et al disclose an apparatus for measuring spectral absorbance using optical modulator to produce spectral absorbance data comprising: a) a light source (10) able to produce light in the desired wavelength region to be measured for spectral absorbance, b) optical modulator (11) capable of temporally changing the spectral wavelength proportion of the light source, c) sample holder (1) capable of introducing the sample into the light path and d) photosensor (9) for determining the total light intensity after passing through the sample. The optical modulator (11) is between the light source (10) and the sample holder (1). A lens (12) is between the light source (10) and the optical modulator (11). The optical spectral measurement absorbance range is between 180 nm and 1050 nm (column 3, lines 29-32). A beam splitter (14-16) is provided for splitting a portion of the light prior to passing through the sample cell (1) to a reference photosensor (8). The optical modulator can be an circular optically transmissive element (column 1, lines 54 and 55). The structure set forth in the body of "method" claims 10, 11, 13 and 18 is disclosed by Louder et al. Applicant's attention is directed to Louder et al in its entirety.

Claims 1, 3, 6, 7 and 19 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Rudomanski et al. (US 3,437,411).

Rudomanski et al. disclose an apparatus for measuring spectral absorbance using optical modulator to produce spectral absorbance data comprising: a) a light source (11) able to produce light in the desired wavelength region to be measured for spectral absorbance, b) optical modulator (38) capable of temporally changing the spectral wavelength proportion of the light source, c) sample holder (61, 62) capable of introducing the sample into the light path and d) a photosensor (48) for determining the total light intensity after passing through the sample. The sample holder (61, 62) is between the light source

Art Unit: 2877

(11) and the optical modulator (38). A focusing mirror (36) is between the light source (11) and the sample holder (62). A focusing mirror (36) is between the sample holder (61) and the sample photosensor (48). The optical modulator is a circular optically transmissive element (column 3, lines 59-64).

Applicant's attention is directed to Rudomanski et al. in its entirety.

Claims 1, 2 and 5 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Kavanagh (US 2,708,389).

Kavanagh discloses an apparatus for measuring spectral absorbance using optical modulator to produce spectral absorbance data comprising: a) a light source (30) able to produce light in the desired wavelength region to be measured for spectral absorbance, b) optical modulator (37) capable of temporally changing the spectral wavelength proportion of the light source, c) sample holder (44) capable of introducing the sample into the light path and d) a photosensor (42) for determining the total light intensity after passing through the sample. The optical modulator (37) is between the light source (30) and the sample holder (44). A lens (39, 41) is between the optical modulator (37) and the sample photosensor (42). Applicant's attention is directed to Kavanagh in its entirety with particular attention directed to Fig. 5 and the text pertaining thereto.

Claims 1, 3 and 8 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Brunsting (US 4,657,398).

Brunsting discloses an apparatus for measuring spectral absorbance using optical modulator to produce spectral absorbance data comprising: a) a light source (12) able to produce light in the desired wavelength region to be measured for spectral absorbance, b) optical modulator (24) capable of temporally changing the spectral wavelength proportion of the light source, c) sample holder (inherent feature-lines 40-45 of column 3) capable of introducing the sample into the light path and d) a photosensor (34, 35) for determining the total light intensity after passing through the sample. The

Art Unit: 2877


sample holder is between the light source (12) and the optical modulator (24). The photosensor can be a silicon photodiode (column 4, lines 21-25). Applicant's attention is directed to Brunsting in its entirety.

Fax/Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner whose telephone number is (571) 272-2414.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


F. L. EVANS
PRIMARY EXAMINER
ART UNIT 2877

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May 13, 2006